

FIGHT THE BITE



San Joaquin County West Nile Virus Task Force

2005

West Nile Virus Expected to be Widespread in California in 2005, in Humans and Horses

West Nile Virus has spread rapidly across the United States since it was first found in New York in 1999. San Joaquin County Public Health officials expect the disease to be widespread in Northern California in 2005.

In West Nile Virus, monitoring methods usually first detect the virus in birds or mosquitoes. When that happens, horse and human cases usually follow. "The best defense against WNV is to avoid being bitten by mosquitoes. Everyone should use a mosquito repellent with DEET to avoid being bitten," said Dr. Karen Furst, the San Joaquin County Public Health Officer.

In 2004, in San Joaquin County, the virus was first detected in July in a dead barn owl in Stockton. Three people in San Joaquin County tested positive for the virus last year, along with 19 horses and 59 dead birds.

West Nile Virus (WNV) is a mosquito-transmitted virus that is passed by mosquitoes to birds. The migrating birds act as hosts and spread the disease from region to region. The virus can be transmitted to humans and animals if they are bitten by an infected mosquito. You cannot get the virus from touching a dead bird or other animal, or from a human. The virus is only passed to humans and animals, including birds and horses, by mosquitoes.

The symptoms of West Nile virus vary, but in general they are as follows:

Serious Symptoms in a Few People: About one in 150 people infected with WNV will develop severe illness. The severe symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. These symptoms may last several weeks, and neurological effects may be permanent.

Milder Symptoms in Some People: Up to 20 percent of the people who become infected will display symptoms which can include fever, headache, and body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. In some cases, symptoms such as fatigue, headache, memory, and concentration problems can persist for weeks to months.

No Symptoms in Most People: Approximately 80 percent of people (about 4 out of 5) who are infected with WNV will not show any symptoms at all.

Those most at risk for serious disease are usually over 50. Medical care should be sought as soon as possible for persons who have symptoms suggesting severe illness. You can die or suffer long-term complications from WNV. The more severe illnesses often require hospitalization. There is no specific treatment for West Nile Virus infection and no human vaccine.

Take Precautions to Protect Against West Nile Virus

- When outdoors, apply insect repellent containing DEET (N,N-diethyl-meta-toluamide) according to label instructions. This type of repellent has been found to be most effective for the longest period of time.
- Wear long-sleeves, long pants and socks when outdoors at peak mosquito times.
- Avoid outdoor activities at dusk and at dawn, or take extra care to use repellent and protective clothing during evening and early morning hours.
- Eliminate standing water around your home and property where mosquitoes can breed.
- Report large numbers of mosquitoes or mosquito infestations to the Mosquito and Vector Control District at (209) 982-4675 or 1-800-300-4675. They can also supply you with mosquito-fish.
- Report dead birds by calling 1-877-WNV-BIRD (1-877-968-2473), or by using the California Department of Health Services web site at www.west-nile.ca.gov. Not all dead birds will be picked up for testing.

There are several good sources of information if you want to know more about West Nile Virus and how to prevent it. Web sites include: www.sjgov.org/oes; www.westnile.ca.gov; www.cdc.gov. For local recorded WNV information call 209-469-8200. The California Department of Health Services WNV Hotline is 1-877-968-2473.

Eliminate Standing
Water Around
Your Home

West Nile Virus Task Force Agencies

- San Joaquin County Public Health Services
- San Joaquin County Mosquito and Vector Control District
- San Joaquin County Environmental Health Department
- San Joaquin County Agricultural Commissioner's Office
- San Joaquin County Office of Emergency Services
- San Joaquin County Media & Communications Office

About Choosing and Using Mosquito Repellents

WHICH REPELLENTS WORK BEST?

Ingredients registered with the Environmental Protection Agency (EPA) have been reviewed and approved for effectiveness and human safety when applied according to the instructions on the label. Products containing



these following active ingredients typically provide longer-lasting protection than others:

- DEET (N,N-diethyl-m-toluamide)
- Picaridin (KBR 3023)

Oil of lemon eucalyptus (p-menthane 3,8-diol), is also registered with EPA. In addition, certain products which contain permethrin are recommended for use on clothing, shoes, bed nets, and camping gear. Permethrin-treated clothing repels and kills mosquitoes. Read the package label for application instructions. Some commercial products are available pretreated with permethrin.

HOW DO I CHOOSE A REPELLENT?

Repellents are available in different forms such aerosol, pump spray, cream, and stick. DEET is available in the US in a variety of concentrations. Higher concentrations offer complete protection for a longer period of time. DEET-based products with concentrations of 23-25% are readily available and appropriate for most situations. Picaridin is available only in a 7% solution in the US.

WHAT PRECAUTIONS SHOULD I TAKE?

Follow the instructions on the product label.

- Apply repellents only to exposed skin. Do not use repellents under clothing.
- Never use repellents over cuts, wounds, or irritated skin.
- Do not apply to eyes or mouth, and apply sparingly around ears. When using sprays, do not spray directly on face—spray on hands first and then apply to face.
- Do not allow children to handle the

product. When using on children, apply to your own hands first, and then put it on the child. You may not want to apply to children's hands.

- After returning indoors, wash treated skin with soap and water, or bathe.
- Be aware that some repellents can damage plastics and certain synthetic fabrics.

CAN REPELLENTS BE USED ON CHILDREN AND PREGNANT OR NURSING WOMEN?

DEET is safe for infants over 2 months of age, children, and pregnant or nursing women. DEET products with concentrations up to 30% are recommended by the American Academy of Pediatrics (AAP). The AAP has not expressed an opinion on picaridin and oil of lemon eucalyptus. The label for products containing oil of lemon eucalyptus specifies that they should not be used on children under the age of three years.

HOW LONG DO REPELLENTS LAST?

Length of protection from mosquito bites varies with the amount of active ingredient, weather, amount of physical activity/perspiration, water exposure, and other factors.

- For DEET products, higher concentrations offer complete protection for a longer period of time. For example, 24% DEET lasts an average of 5 hours; 15% lasts 3-4 hours; 7% lasts 2 hours; 4.75% lasts 1½ hours.
- The manufacturer of 7% picaridin recommends spraying on the skin every 3 to 4 hours.
- The duration of oil of lemon eucalyptus and soybean oil is similar to the low concentrations of DEET.
- Skin-So-Soft products by Avon protect for 23 minutes (Bug Guard Plus) or less.

Always Follow the
Instructions on the
Product Label

Six Steps to Take to Eliminate Standing Water Around Your Home and Yard

1. Empty rainwater from all containers including barrels, cans and buckets; also, turn these items over to prevent refilling.
2. Clean rain gutters & downspouts to eliminate standing water.
3. Drain tires, boats and other large water holding areas.
4. Chlorinate and filter swimming pools, cover if not in use.
5. Drain, clean and refill birdbaths and ornamental fishponds; stock with mosquitofish (provided free from the District).
6. Pump out basements and crawl spaces under building.

Mosquito Facts — Did you know?

- ✓ All mosquitoes must have water in which to complete their life cycle.
- ✓ Only a female mosquito bites and the blood is used as protein for the eggs she will lay.
- ✓ Mosquitoes can complete an entire life cycle in 3 to 10 days in warm weather.
- ✓ Mosquitoes do not develop in grass or shrubbery, although flying adults frequently rest in these areas during daylight hours.
- ✓ One mosquito can potentially produce 1200 more mosquitoes.
- ✓ Mosquito Eaters or Mosquito Hawks are really a Crane fly and do not eat mosquitoes.
- ✓ A single 5-gallon bucket of water can produce enough mosquitoes to bother an entire city block of people.